

Title (en)

METAL-ADSORBING COMPOSITE MATERIAL BASED ON MAGNETIC GRAPHENE OXIDE AND METHOD FOR OBTAINING SAME

Title (de)

METALLADSORBIERENDES VERBUNDMATERIAL AUF DER BASIS VON MAGNETISCHEM GRAPHENOXID UND VERFAHREN ZU DESSEN HERSTELLUNG

Title (fr)

MATÉRIAU COMPOSÉ ADSORBANT DE MÉTAUX À BASE D'OXYDE DE GRAPHÈNE MAGNÉTIQUE ET PROCÉDÉ D'OBTENTION

Publication

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Application

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Abstract (en)

A metal-adsorbing composite material based on magnetic graphene oxide and method for obtaining same. A metal-adsorbing composite material based on magnetic graphene oxide and method for obtaining same. The present invention relates to a metal-adsorbing composite material comprising: a hybrid material comprising either coated magnetic nanoparticles modified with amino groups and/or hydroxyl groups on their surface, coupled to graphene oxide by physical forces and amide- or ester-like covalent bonds; said magnetic graphene oxide activated by the introduction of acid groups; and/or an alkylpolyamine to which said activated magnetic graphene oxide is attached by covalent bonding; and a ligand comprising a chelating functional group, said ligand being attached to the hybrid material by said alkylpolyamine. The invention also relates to the method for obtaining said composite material and use thereof in the decontamination and treatment of spills.

IPC 8 full level

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